

Claims

1. A system for facilitating a change in distance between objects, said system including:

a head component configured to attach to one of said objects;

a wire having a first end and a second end, wherein said first end of said wire is configured to mate with said head component; and,

a cap configured to mate with said second end of said wire.

2. The system of claim 1, wherein said head component includes a tip, cutting threads and fastening threads.

3. The system of claim 1, wherein said head component includes a tool attachment configured to mate with a tool head.

4. The system of claim 1, wherein said wire having a first interface component and said cap having a second interface component, wherein said first and second interface component are configured to mate such that said cap translates in only one direction.

5. The system of claim 1, wherein said cap is configured with threads on an outside surface of said cap to facilitate rotating cap into said object.

6. The system of claim 1, wherein said cap is configured with a substantially flat end to minimize said cap from protruding from said object surface.

7. The system of claim 1, wherein said cap includes a center hole for receiving said wire and additional openings for facilitating expansion of said cap.

8. The system of claim 1 further including a tensioner for applying tension to said wire.

9. The system of claim 8, wherein said tensioner includes a cannulated rod configured to receive said wire and gears with a first interface component configured to mate with a second interface component of said wire to apply tension to said wire.

10. The system of claim 8, wherein said tensioner includes a gauge to determine the amount of tension.

11. A system for the fixation of a bone fracture having a first surface and a second surface, said system including:

a head component configured to attach into said first surface of said bone;

a wire having a first end and a second end, wherein said first end of said wire is configured to mate with said head component; and,

a cap configured to mate with said second end of said wire.

12. The system of claim 11, wherein said wire extends through said second surface of said bone and said cap is configured to mate with said wire against said second surface of said bone to exert tension on said wire, thereby compressing said first and second surfaces of said bone against each other.

13. The system of claim 11, wherein said second surface also includes a surgical plate.

14. A cap device having an outside surface and an inside surface, said inside surface including an interface component and said outside surface including cutting threads.

15. The cap device of claim 14, wherein said cap includes a substantially flat top surface to minimize said cap from protruding above the surface of said object

after said cap is inserted into said object.

16. The system of claim 14, wherein said cap includes a center hole for receiving a wire and additional openings for facilitating expansion of said cap.

17. A method for facilitating a change in distance between a first and second surface, said method including:

providing a head component mated with a wire having a first interface component;

inserting said head component into said first surface;

extending said wire through said second surface; and,

threading a cap having a second interface component over said first interface component of said wire.

18. The method of claim 17, wherein said inserting step includes mating a drill over a driver head of said head component to facilitate drilling said head component into said bone.

19. The method of claim 17, wherein said head component includes cutting threads and mating threads such that said inserting step includes cutting new threads into said object using said cutting threads and mating said new threads with said mating threads.

20. The method of claim 17, wherein excess wire beyond said cap is removed.

21. The method of claims 17 further including exerting pressure between said first and second surfaces by exerting tension on said wire.